IMAGE FOCUS

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A trace of acrylic bone cement: from spine to heart

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A 69-year-old man presented with chest pain and dyspnoea. He had lumbar fixation surgery with acrylic bone cement injection at L4, L5, and S1 levels 4 days ago. Transthoracic echocardiography showed a large amount of pericardial effusion. Coronary angiogram revealed normal epicardial coronary arteries; however, vertically positioned linear radiopaque material was noted at the right ventricular (RV) side adjacent to the heart border. Chest computed tomography (CT) showed a spear-like, high-density foreign material (arrow) penetrating the inferior wall of RV and combined a large amount of pericardial effusion (PE) (*Panel A*). Several other sharp materials scattered in left pulmonary artery and distal pulmonary arteries were also visualized. On abdominal CT and spinal X-ray, direct projection of high-density linear material (arrow) from the previous cement injection site to the inferior vena cava (IVC) confirmed the mechanism of the acrylic bone cement penetrating into the IVC via spinal venous plexus while it was still in liquid state (*Panels B* and *C*). The critical foreign body that penetrated the RV inferior wall was successfully removed (*Panel D*). The patient was discharged uneventfully in spite of the several remaining silent foreign bodies including the one in the IVC (*Panels B* and *C*).